

## WHAT IS CLAIMED IS:

1. A portable telephone having a display device, said display device comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said gate signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other.

2. A camera having a display device, said display device comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said gate signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other.

3. A personal computer having a display device, said display device comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said gate signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer



circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other.

4. A portable information terminal having a display device, said display device comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said gate signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other.

5. A portable telephone having a display device, said display device, comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said source signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other.



6. A camera having a display device, said display device, comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said source signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other.

7. A personal computer having a display device, said display device, comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said source signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other.

8. A portable information terminal having a display device, said display device, comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said source signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin



film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other.

9. A portable telephone having a display device, said display device comprising:

a driving circuit comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in said inverters have a channel width of 100  $\mu\text{m}$  or less.

10. A camera having a display device, said display device comprising:

a driving circuit comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in said inverters have a channel width of 100  $\mu\text{m}$  or less.



11. A personal computer having a display device, said display device comprising:

a driving circuit comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in said inverters have a channel width of 100  $\mu\text{m}$  or less.

12. A portable information terminal having a display device, said display device comprising:

a driving circuit comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in said inverters have a channel width of 100  $\mu\text{m}$  or less.

13. A portable telephone having a display device, said display device comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,



wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein a channel width of the plurality of n-channel thin film transistors and the plurality of p-channel thin film transistors in one of said inverters is different from that of said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in another one of said inverters.

14. A camera having a display device, said display device comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein a channel width of the plurality of n-channel thin film transistors and the plurality of p-channel thin film transistors in one of said inverters is different from that of said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in another one of said inverters.

15. A personal computer having a display device, said display device comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and



wherein a channel width of the plurality of n-channel thin film transistors and the plurality of p-channel thin film transistors in one of said inverters is different from that of said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in another one of said inverters.

16. A portable information terminal having a display device, said display device comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein a channel width of the plurality of n-channel thin film transistors and the plurality of p-channel thin film transistors in one of said inverters is different from that of said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in another one of said inverters.

17. A portable telephone having a display device, said display device comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said gate signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other,



wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

18. A camera having a display device, said display device comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said gate signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

19. A personal computer having a display device, said display device comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said gate signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other,



wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

20. A portable information terminal having a display device, said display device comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said gate signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

21. A portable telephone having a display device, said display device, comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said source signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other,



wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

22. A camera having a display device, said display device, comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said source signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

23. A personal computer having a display device, said display device, comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said source signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other,



wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

24. A portable information terminal having a display device, said display device, comprising:

a source signal line side driving circuit; and

a gate signal line side driving circuit,

wherein said source signal line side driving circuit includes a buffer circuit connected with an output line from a shift register circuit, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors, and

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

25. A portable telephone having a display device, said display device comprising:

a driving circuit comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and



wherein said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in said inverters have a channel width of 100  $\mu\text{m}$  or less,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

26. A camera having a display device, said display device comprising:

a driving circuit comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in said inverters have a channel width of 100  $\mu\text{m}$  or less,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

27. A personal computer having a display device, said display device comprising:

a driving circuit comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is



connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in said inverters have a channel width of 100  $\mu\text{m}$  or less.

28. A portable information terminal having a display device, said display device comprising:

a driving circuit comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in said inverters have a channel width of 100  $\mu\text{m}$  or less,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

29. A portable telephone having a display device, said display device comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and



wherein a channel width of the plurality of n-channel thin film transistors and the plurality of p-channel thin film transistors in one of said inverters is different from that of said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in another one of said inverters,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

30. A camera having a display device, said display device comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein a channel width of the plurality of n-channel thin film transistors and the plurality of p-channel thin film transistors in one of said inverters is different from that of said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in another one of said inverters,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

31. A personal computer having a display device, said display device comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin



film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein a channel width of the plurality of n-channel thin film transistors and the plurality of p-channel thin film transistors in one of said inverters is different from that of said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in another one of said inverters,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.

32. A portable information terminal having a display device, said display device comprising:

a buffer circuit connected with an output line from a shift register, said buffer circuit having a plurality of inverters,

wherein each of said inverters comprises a plurality of n-channel thin film transistors and a plurality of p-channel thin film transistors,

wherein each of said plurality of n-channel thin film transistors is connected in parallel with each other and each of said plurality of p-channel thin film transistors is connected in parallel with each other, and

wherein a channel width of the plurality of n-channel thin film transistors and the plurality of p-channel thin film transistors in one of said inverters is different from that of said plurality of n-channel thin film transistors and said plurality of p-channel thin film transistors in another one of said inverters,

wherein channel regions of the plurality of n-channel thin film transistors in one of the inverters are formed in a first semiconductor film and channel regions of the plurality of p-channel thin film transistors in one of the inverters are formed in a second semiconductor film.



33. The portable telephone according to any one of claims 1, 5, 9, 13, 17, 25 and 29 wherein said display device is a liquid crystal device.

34. The portable telephone according to any one of claims 1, 5, 9, 13, 17, 25 and 29 wherein said display device is an electroluminescence display device.

35. The portable telephone according to any one of claims 1, 5, 9, 13, 17, 25 and 29 wherein each of the first and second semiconductor films comprises crystalline silicon.

36. The camera according to any one of claims 2, 6, 10, 14, 18, 22, 26 and 30 wherein said display device is a liquid crystal device.

37. The camera according to any one of claims 2, 6, 10, 14, 18, 22, 26 and 30 wherein said display device is an electroluminescence display device.

38. The camera according to any one of claims 2, 6, 10, 14, 18, 22, 26 and 30 wherein each of the first and second semiconductor films comprises crystalline silicon.

39. The personal computer according to any one of claims 3, 7, 11, 15, 19, 23, 27 and 31 wherein said display device is a liquid crystal device.

40. The personal computer according to any one of claims 3, 7, 11, 15, 19, 23, 27 and 31 wherein said display device is an electroluminescence display device.

41. The personal computer according to any one of claims 3, 7, 11, 15, 19, 23, 27 and 31 wherein each of the first and second semiconductor films comprises crystalline silicon.



42. The portable information terminal according to any one of claims 4, 8, 12, 16, 20, 24 and 28 wherein said display device is a liquid crystal device.

43. The portable information terminal according to any one of claims 4, 8, 12, 16, 20, 24 and 28 wherein said display device is an electroluminescence display device.

44. The portable information terminal according to any one of claims 4, 8, 12, 16, 20, 24 and 28 wherein each of the first and second semiconductor films comprises crystalline silicon.

45. The camera according to any one of claims 2, 6, 10, 14, 18, 22, 26 and 30 wherein said camera is a still camera.

46. The camera according to any one of claims 2, 6, 10, 14, 18, 22, 26 and 30 wherein said camera is a video camera.